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THE THEORY OF FUNCTIONS OF A REAL VARIABLE

General Textbook for Teachers' Colleges  
 Second Edition

Academician N. N. Luzin

## FOREWARD

At present, the composition of a complete treatise on the theory of sets and on the theory of functions of a real variable seems untimely, since various investigations on the principles of these disciplines can easily render the most conscientious and meticulous exposition obsolete.

In view of this, this book's purpose is the solution of just purely pedagogical problems involved in the teaching of the principles of the theory of functions. The scientific problem of selecting the necessary material for the elements of the theory of functions and reducing it to a strict logical system has been solved in sufficiently satisfactory degree by existing courses. Among these one can indicate Alexandrov and Kolmogorov's book and Valle Poussin's fine course of analysis.

The author of this book intended to solve only the pedagogical problems, namely the problem of presenting the scientific material, without increasing its size as given by Valle Poussin, in as vital a form as possible in order to make it accessible and attractive, and thereby to lead to a deep study of mathematical analysis.

The theory of irrational numbers is placed in the Appendix out of pedagogic considerations, since its detailed logical development placed at the beginning of the book would hamper the student and thus adversely influence his future interest.

In conclusion, I must mention my deep appreciation to my students: B. K. Mlodzyevskiy who always strives for the artistic side of exposition, and I. I. Zhegalkin who always insists upon absolute clarity for the student.

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To V. I. Glivenko I express my appreciation for his review of my manuscript and comments.

And, finally, I offer my profoundest thanks to the editor, S. I. Novoselov, for his detailed check of the text and for his valuable counsel and corrections.

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